USGS science for a changing world

Earthquake Shaking **Green Alert**

GSN USAID FROM THE AMERICAN PEOPLE ANSS

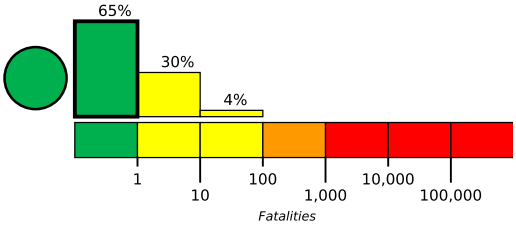
M 5.9, 46km S of Valencia, Philippines

Origin Time: 2019-07-01 16:59:26 UTC (Tue 00:59:26 local)
Location: 9.1883° N 124.2001° E Depth: 549.2 km

PAGER Version 5

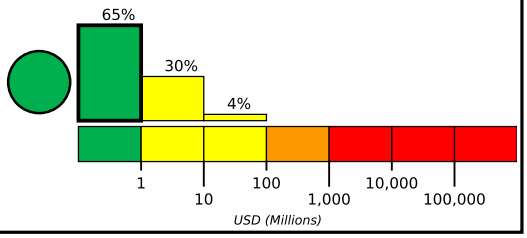
Created: 3 hours, 2 minutes after earthquake

Estimated Fatalities



Green alert for shaking-related fatalities and economic losses. There is a low likelihood of casualties and damage.

Estimated Economic Losses

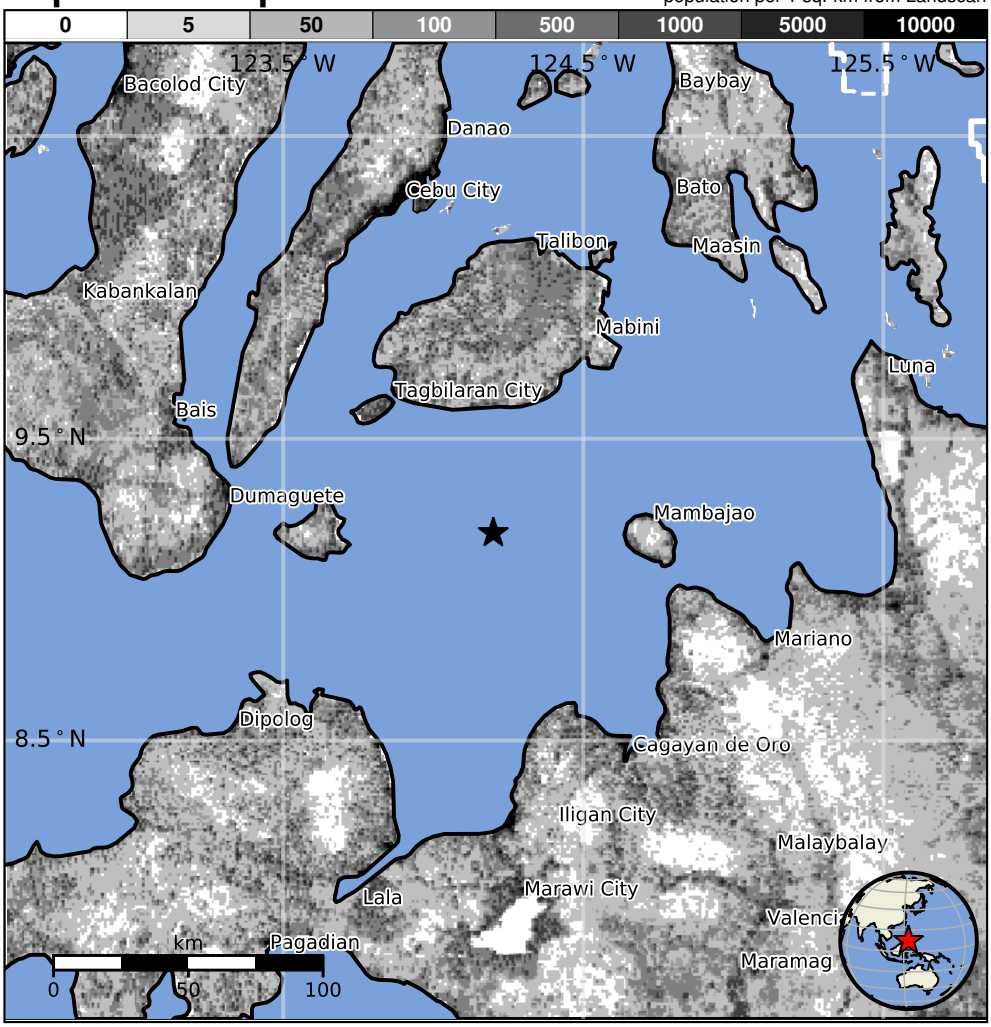


Estimated Population Exposed to Earthquake Shaking

ESTIMATED POPULATION EXPOSURE (k=x1000)		23,883k*	0	0	0	0	0	0	0	0
ESTIMATED MODIFIED MERCALLI INTENSITY		I	II-III	IV	V	VI	VII	VIII	IX	X+
PERCEIVED SHAKING		Not felt	Weak	Light	Moderate	Strong	Very Strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	Resistant Structures	None	None	None	V. Light	Light	Moderate	Mod./Heavy	Heavy	V. Heavy
	Vulnerable Structures	None	None	None	Light	Moderate	Mod./Heavy	Heavy	V. Heavy	V. Heavy

*Estimated exposure only includes population within the map area.

Population Exposure



Structures

Overall, the population in this region resides in structures that are a mix of vulnerable and earthquake resistant construction. The predominant vulnerable building types are unknown/miscellaneous types and heavy wood frame construction.

Historical Earthquakes

Date (UTC)	Dist. (km)	Mag.	Max MMI(#)	Shaking Deaths
1999-12-15	236	4.8	VI(34k)	1
1987-05-23	191	5.7	VII(70k)	1
2002-03-05	352	7.5	VIII(12k)	15

Recent earthquakes in this area have caused secondary hazards such as landslides that might have contributed to losses.

Selected City Exposure

from GeoNames.org

MMI	City	Population
I	Dapitan	2k
I	Sikatuna	<1k
I	Gabi	3k
I	Tangnan	3k
I	**Danao**	**18k**
I	Tagum Norte	3k
I	**Cagayan de Oro**	**445k**
I	Butuan	310k
I	**Cebu City**	**799k**
I	**Pagadian**	**187k**
I	**Bacolod City**	**455k**

bold cities appear on map. (k=x1000)

PAGER content is automatically generated, and only considers losses due to structural damage. Limitations of input data, shaking estimates, and loss models may add uncertainty.

https://earthquake.usgs.gov/earthquakes/eventpage/us7000483i#pager

Event ID: us7000483i